

ART. III.—A *Species of Argas, apparently new to Science.*

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(With Plate II.)

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Four specimens of "Fowl-tick" handed to me by Professor Gilruth from a spirochaete-infected fowl appear at first sight to be the hexapod larvae of *Argas miniatus*, Koch, 1844, as figured by Salmon and Stiles (1901, pp. 405-7), which is now regarded by Nuttall and others in their recent "Monograph of the Ixodoidea" (1908, p. 8) as synonymous with *Argas persicus* (Oken), 1818. But on closer examination they are found to differ in several particulars from that form, especially in size, in which they more closely resemble *Argas vespertilionis* (Latreille), 1796, and in the more ventral position of the capitulum, in which they are unlike the larvae either of *Argas persicus* or of *Argas vespertilionis*, though very similar to the nymph of *A. vespertilionis*, figured and described by Nuttall (1908, fig. 50 and p. 37).

The proportionate size does not appear to be related in this case to the age of the larva, since the larva of *Argas persicus*, which is from .6 to .7 mm. long, and about the same in width, simply becomes longer as it matures; whereas three of my specimens are wider than long, the other circular, and all four much larger than the hexapod larva of *Argas persicus*. It is easily conceivable that *Argas vespertilionis*, the bat-tick, should be found on a fowl, but not only are these four specimens distinctly smaller than the larvae of *A. vespertilionis*, but they differ in several other points from the latter, as seen in the following diagnosis.

In view of the condensation of species of *Argas* by recent workers, I hesitate to found a new species in the absence of more material for comparison, but in order to avoid possible

confusion, it appears advisable to record these specimens as a new species—viz., *Argas victoriensis*. Efforts have been made to obtain more specimens of this form from the original source, but so far they have not been successful. All other fowl-ticks so far examined from Victoria, New South Wales and Tasmania, have been undoubtedly *Argas persicus* [c.f. Nuttall and others (1908, p. 21)].

Argas victoriensis, n.sp.

Diagnosis of Species.—Larva. Length 1.1 to 1.6 mm. wide, and .96 to 1.6 mm. long, hexapod, and generally a short oval, but sometimes circular in outline, quite flat. The capitulum is inserted ventrally, but in none of my specimens does more than the extreme tip of the hypostome project beyond the anterior edge of the hood, and as a rule only the tips of the chelicerae project anteriorly (contrast *Argas persicus* larva); the palps, however, may do so, up to three joints or articles being visible from the dorsal surface. The palps are .258 mm. long, and slender, the terminal article being much longer than wide. (Compare *Argas persicus*, and contrast *Argas respertilionis*.) The width of the capitulum at the widest part of the base, i.e., posteriorly, is .186 mm. (contrast .160 mm. at this region in *A. persicus*). The length of the hypostome is .186 mm. (contrast .144 mm. in *A. persicus*). The integument has fine transverse parallel wrinkles. Intestinal caeca are well developed. No discs ("pits") are visible. The legs are long and similar to those of *A. persicus*. Twenty-six marginal hairs are present, extending right round the body and hood. In other respects this form resembles *A. persicus*.

Locality.—Northern Victoria.

ADDENDUM.

Since writing the above, I have received from Professor Gilruth a further supply of fowl-ticks, obtained from the Riverina. This included seven larvae taken from the bird in daylight, and also some adults, obtained from the walls of the

fowl-house. The latter appear, so far as examined, to be indistinguishable from *Argas persicus*, but the larvae are undoubtedly similar to those described above as *Argas victoriensis*, n. sp. There is as yet no proof of any connection between these adults and larvae, although such may certainly be suspected—and at the earliest opportunity I shall endeavour to hatch out the adults from such larvae in order to test the point. On the other hand, the great difference in the chelicerae and hypostome from those described for the larvae of *Argas persicus*, points to the validity of this new species. Under the circumstances the following table seems desirable, showing individual width and length, and the character of the hypostome:—

	Width	Length	
1.	1.1 mm.	.96 mm.	Tips of chelicerae only, visible dorsally.
2.	1.3 mm.	1.3 mm.	Tip of hypostome visible dorsally.
3.	1.6 mm.	1.6 mm.	Hypostome and chelicerae not visible dorsally
4.	1.1 mm.	.96 mm.	" " " " " "
5.	1.5 mm.	1.76 mm.	Tip of hypostome visible dorsally.
6.	.96 mm.	.96 mm.	Hypostome and chelicerae not visible dorsally
7.	1.2 mm.	1.2 mm.	" " " " " "
8.	1.05 mm.	1.01 mm.	" " " " " "
9.	1.32 mm.	1.36 mm.	" " " " " "
10.	1. mm.	.89 mm.	Tip of hypostome visible dorsally.
11.	1. mm.	.93 mm.	Extreme tip of hypostome visible dorsally.

Nos. 5 to 11 are those referred to in this addendum.

BIBLIOGRAPHY.

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“Monograph of the Ixodoidea, Pt. I., Argasidae.”

Salmon and Stiles, 1901, U.S. Dept. of Agriculture.

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EXPLANATION OF PLATE II.

Fig. 1.—*Argas victoriensis*, n. sp.—Larva—dorsal view. $\times 20$.
Two posterior legs on left-hand side somewhat distorted in appearance through fore-shortening. The tips of the chelicerae only are seen at the anterior border.

- Fig. 2. *Argas victoriensis*, n. sp., Larva—ventral view. $\times 25$.
The three legs on the right-hand side are broken about the middle of their length.
- Fig. 3.—Anterior border of a third specimen of same, showing chelicerae only, projecting in front of the body.
- Fig 4.—Portion of integument, from posterior border of specimen of same, showing marginal quadrangular "cells."

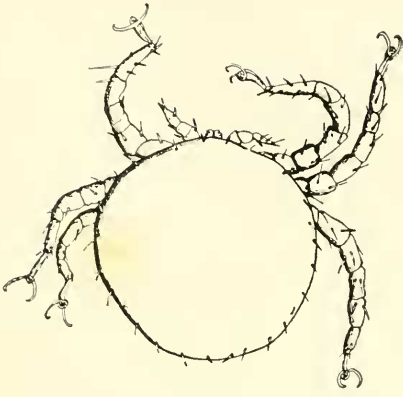


FIG 1



FIG 3

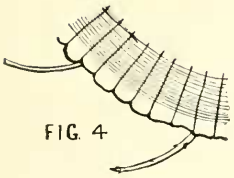


FIG 4

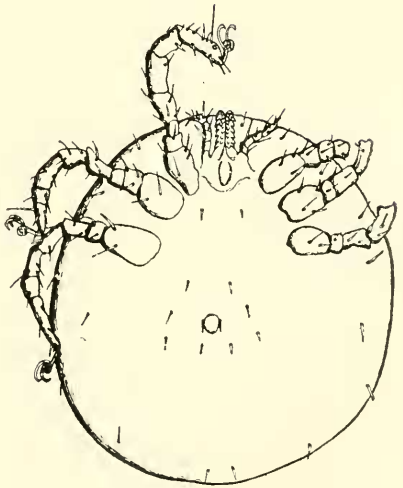


FIG. 2